

a three-dimensional computer model of the subject object,
and for displaying an image to show a predetermined part
of the subject object, comprising:

a calibration pattern having a position or direction
defined relative thereto; and

a processing apparatus configured to:

process data defining images of the subject object
and calibration pattern recorded from different relative
recording positions and orientations to calculate the
relative positions and orientations at which the images
were recorded by comparing the calibration pattern in the
images with stored data defining the calibration pattern;

generate data defining a three-dimensional computer
model of the subject object relative to the stored
calibration pattern using the calculated positions and
orientations;

select data defining a recorded image in dependence
upon the stored calibration pattern; and

display an image in dependence upon the selected
image data.

48. Apparatus for generating data defining a three-
dimensional computer model of a subject object and data
defining an image to show a predetermined part of the
subject object, comprising:

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a data receiver for receiving image data defining
images of a subject object together with a calibration
pattern recorded at different relative recording
positions and orientations, the subject object being
5 positioned relative to the calibration pattern so that
a selected part of the subject object which is to appear
in an image is in a predetermined direction relative to
the calibration pattern;

10 a position and orientation calculator operable to
process the image data to calculate the relative
positions and orientations at which the images were
recorded by comparing the calibration pattern in the
images with stored data defining the calibration pattern;

15 a computer model generator operable to generate data
defining a three-dimensional computer model of the
subject object relative to the stored calibration pattern
using the calculated positions and orientations; and

20 an image data generator operable to generate data
defining an image of the selected part of the subject
object in dependence upon the stored calibration pattern
and the received image data.

49. Apparatus for generating data defining an image of
a predetermined part of a subject object, comprising:

25 a data receiver for receiving image data defining

images of the subject object together with a calibration pattern recorded at different relative recording positions and orientations, the subject object being positioned relative to the calibration pattern so that a selected part of the subject object which is to appear in an image faces in a predetermined direction relative to the calibration pattern;

a position and orientation calculator operable to process the image data to calculate the relative positions and orientations at which the images were recorded by comparing the calibration pattern in the images with stored data defining the calibration pattern; and

an image data generator operable to generate data defining an image of the selected part of the subject object in dependence upon the stored calibration pattern and the received image data.

50. Apparatus according to claim 48 or claim 49, wherein the image data generator is operable to select an image defined by the received data in dependence upon the calculated recording positions and orientations relative to the stored calibration pattern, and to generate the image data in dependence upon the selected image data.